

Message Text

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ACTION OES-07

INFO OCT-01 EA-12 ISO-00 NSF-02 CCO-00 CIAE-00 OTPE-00

EB-08 FCC-02 INR-07 NSAE-00 OC-06 USIA-15 COME-00

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TO SECSTATE WASHDC 0734

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FOR OES/APT/SA; INR/DDC

E.O. 11652: N/A

TAGS: TECH, JA

SUBJECT: OPTICAL COMMUNICATIONS SYSTEM: NATIONAL PROJECT

1. MITI/AIST OFFICIALS IN CHARGE OF NATIONAL R&D PROGRAM HAVE CONFIRMED PRESS REPORTS TO EFFECT THAT AGENCY PLANS TO INITIATE NEW NATIONAL PROJECT ON DEVELOPMENT OF OPTICAL COMMUNICATIONS SYSTEM IN FY 1978, IF PLAN IS APPROVED BY MINISTRY OF FINANCE IN CURRENT BUDGET NEGOTIATIONS.

2. NATIONAL R&D PROGRAM, LAUNCHED IN 1966, NOW COVERS TEN PROJECTS: MHD, DESALINATION, ELECTRIC VEHICLES, PATTERN INFORMATION PROCESSING, AIRCRAFT JET ENGINE, DIRECT IRON-MAKING PROCESS, INTEGRATED AUTOMOBILE CONTROL SYSTEM, RESOURCES RECYCLING, OLEFINS FROM HEAVY OIL, AND RECOVERY OF WASTE HEAT. PROGRAM ENTIRELY FUNDED BY CENTRAL GOVERNMENT, IS ADMINISTERED BY MITI/AIST AND CARRIED OUT THROUGH COOPERATION OF GOVERNMENTAL, INDUSTRIAL AND ACADEMIC LABORATORIES.

3. FOR OPTICAL COMMUNICATIONS SYSTEM, MITI/AIST

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PROPOSES TO INVEST 10 BILLION YEN (APPROX. 40 MILLION DOLLARS) IN NEXT SIX TO SEVEN YEARS IN RESEARCH, DEVELOPMENT AND DEMONSTRATION OF THE SYSTEM. TECHNOLOGY RELATED TO OPTICAL COMMUNICATIONS IS ALREADY BEING ACTIVELY DEVELOPED BY NTT, KDD, UTILITIES AND ELECTRICAL ENGINEERING FIRMS. MITI/AIST HOPES TO FURTHER DEVELOP TECHNOLOGY ON BASIS OF EXISTING PRIVATE PROGRAMS FOR EXTENSIVE INDUSTRIAL

AND NON-INDUSTRIAL APPLICATIONS. AS IN CASE OF SUPER LSI DEVELOPMENT, COORDINATION WITH NTT AND KDD WILL BE NECESSARY TO AVOID OVERLAPPING OF R&D.

4. SYSTEM IS MADE UP OF THREE SUB-SYSTEMS: TRANSMISSION, CARRIER AND RECEPTION. FOR TRANSMITTER, EFFORTS WILL BE FOCUSED ON DEVELOPING LIGHT SOURCE (SEMICONDUCTOR LASER) FIT FOR BROAD-BAND TRANSMISSION AND HIGH-SENSITIVITY MODULATOR; FOR CARRIER, TO DEVELOP LOW-COST AND DURABLE OPTICAL FIBERS AND RELIABLE REPEATER; AND FOR RECEIVER, TO DEVELOP RELIABLE DEMODULATOR. OPTICAL CIRCUITS FOR LINKING UP THESE SUB-SYSTEMS SHOULD BE OF MONOLITHIC INTEGRATION STRUCTURE TO ENSURE RAPID TRANSMISSION, HIGH RELIABILITY AND HARDWARE MINIATURIZATION. OPTICAL COMMUNICATIONS SYSTEM IS IDEAL FOR INFORMATION TRANSMISSION IN FACTORY OR TRANSPORTATION FACILITIES USING HEAVY ELECTRIC CURRENTS BECAUSE SYSTEM IS NOT AFFECTED BY ELECTROMAGNETIC INDUCTION INTERFERENCE, AND FOR DISASTER PREVENTION INFORMATION SYSTEM BECAUSE OF ITS RESISTANCE TO FIRE, WATER AND CHEMICALS.
MANSFIELD

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Message Attributes

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Sent Date: 01-Sep-1977 12:00:00 am
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Disposition Approved on Date:
Disposition Case Number: n/a
Disposition Comment:
Disposition Date: 01-Jan-1960 12:00:00 am
Disposition Event:
Disposition History: n/a
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SAS ID: 1078551
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